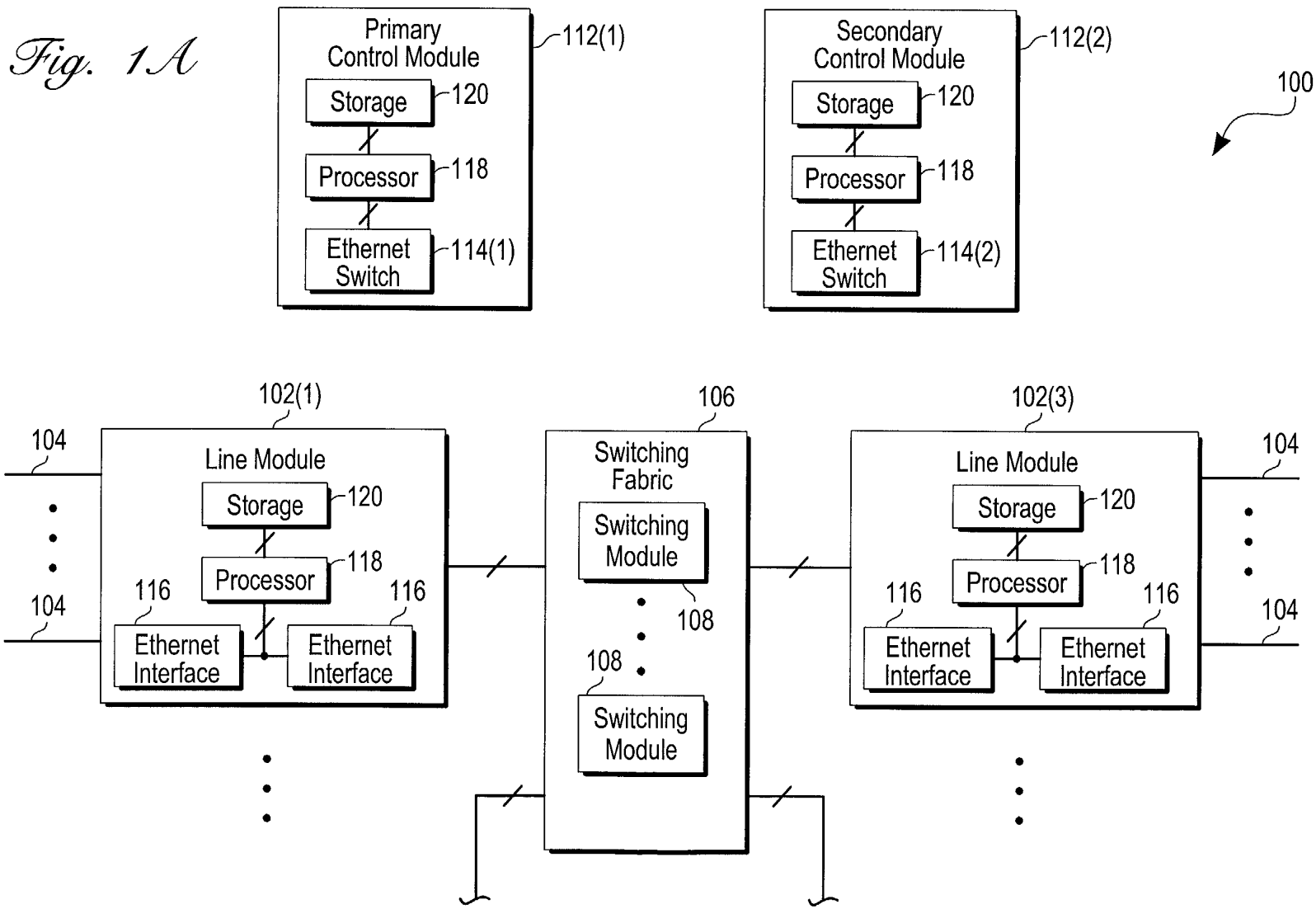
*Fig. 1A*


Primary Control Module
112(1)
Storage
120
Processor
118
Ethernet Switch
114(1)
Secondary Control Module
112(2)
Storage
120
Processor
118
Ethernet Switch
114(2)
100
102(1)
106
102(3)
104
Line Module
Storage
120
Processor
118
116
Ethernet Interface
116
Ethernet Interface
Switching Fabric
Switching Module
108
Switching Module
108
Line Module
Storage
120
Processor
118
116
Ethernet Interface
116
Ethernet Interface
104

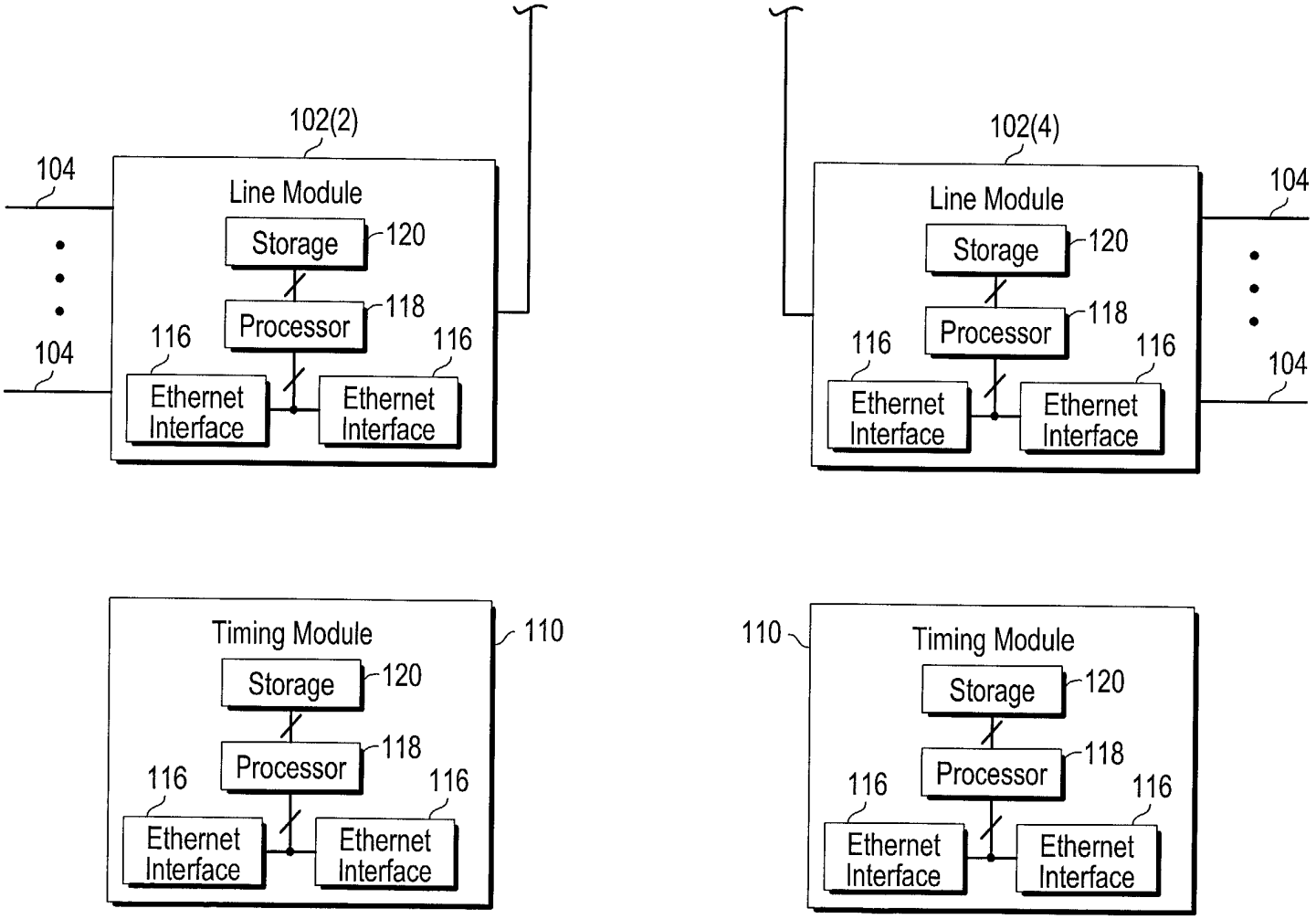

102(2)
104
Line Module
Storage
120
Processor
118
116
116
104
Ethernet Interface
Ethernet Interface
102(4)
104
Line Module
Storage
120
Processor
118
116
116
104
Ethernet Interface
Ethernet Interface
Timing Module
110
Storage
120
Processor
118
116
116
Ethernet Interface
Ethernet Interface
110
Timing Module
Storage
120
Processor
118
116
116
Ethernet Interface
Ethernet Interface

*Fig. 1B*

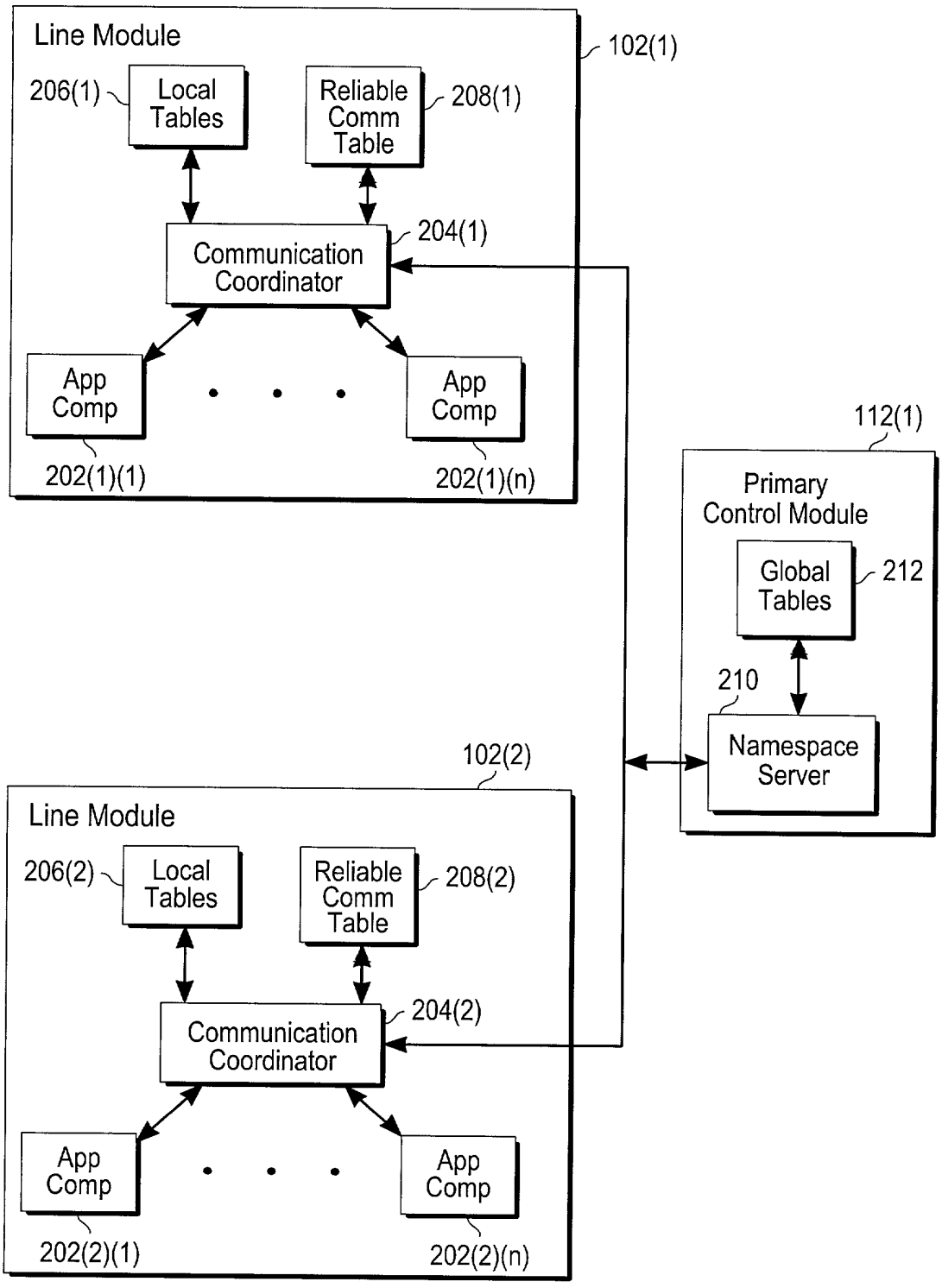

Line Module
102(1)
206(1)
Local Tables
Reliable Comm Table
208(1)
204(1)
Communication Coordinator
App Comp
App Comp
202(1)(1)
202(1)(n)
112(1)
Primary Control Module
Global Tables
212
210
Namespace Server
102(2)
Line Module
206(2)
Local Tables
Reliable Comm Table
208(2)
204(2)
Communication Coordinator
App Comp
App Comp
202(2)(1)
202(2)(n)

*Fig. 2*

Local Publishers Table

302

| Namespace | Reference to Publisher | IP address/ Port # |
|---|---|---|
| /LM/1/Monitor/Event/LOS | P1 | X1, Y1 |

310

*Fig. 3A*

Local Subscribers Table

304

| Namespace | Reference to Subscriber | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|
| /LM/2/Foo/Event/Sleep | S1 | X1, Y1 | Reliable | Normal |
| /LM/1/Monitor/Event/LOS | S2 | X2, Y2 | Best Effort | Normal |

312

314

*Fig. 3B*

Local Servers Table

306

| | Namespace | Reference to Server | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|---|
| 320 | /LM/1/Monitor/Op/Get | P1 | X1, Y1 | Best Effort | Normal |
| 322 | /LM/2/Foo/Op/Set | P2 | X2, Y2 | Best Effort | Normal |

*Fig. 3C*

Local Clients Table

308

| | Namespace | Reference to Client | IP address/ Port # |
|---|---|---|---|
| 324 | /LM/2/Foo/Op/Set | S1 | X1, Y1 |

*Fig. 3D*

Local Publishers Table

402

| Namespace | Reference to Publisher | IP address/ Port # |
|---|---|---|
| /LM/2/Foo/Event/Sleep | P2 | X2, Y2 |

410

*Fig. 4A*

Local Subscribers Table

404

| Namespace | Reference to Subscriber | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|
| /*/Event/LOS | S2 | X2, Y2 | Best Effort | Normal |
| /LM/2/Foo/Event/Sleep | S1 | X1, Y1 | Reliable | Normal |

412

414

*Fig. 4B*

Local Servers Table

406

| | Namespace | Reference to Server | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|---|
| 420 | /LM/2/Foo/Op/Set | P2 | X2, Y2 | Best Effort | Normal |
| 422 | /LM/1/Monitor/Op/Get | P1 | X1, Y1 | Best Effort | Normal |

*Fig. 4C*

Local Clients Table

408

| | Namespace | Reference to Client | IP address/ Port # |
|---|---|---|---|
| 424 | /LM/1/Monitor/Op/Get | S2 | X2, Y2 |

*Fig. 4D*

Global Publishers Table

502

| | Namespace | Reference to Publisher | IP address/ Port # |
|---|---|---|---|
| 510 | /LM/1/Monitor/Event/LOS | P1 | X1, Y1 |
| 512 | /LM/2/Foo/Event/Sleep | P2 | X2, Y2 |
| 514 | /LM/3/Bar/Event/Wake | P3 | X3, Y3 |
| | ⋮ | ⋮ | ⋮ |

Fig. 5A

Global Subscribers Table

504

| | Namespace | Reference to Subscriber | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|---|
| 516 | /LM/2/Foo/Event/Sleep | S1 | X1, Y1 | Reliable | Normal |
| 518 | /*/Event/LOS | S2 | X2, Y2 | Best Effort | Normal |
| 520 | /LM/4/Test/Event/True | S3 | X4, Y4 | Best Effort | Normal |
| | ⋮ | ⋮ | ⋮ | ⋮ | ⋮ |

Fig. 5B

Global Servers Table

506

| | Namespace | Reference to Server | IP address/ Port # | Reliability | Priority |
|---|---|---|---|---|---|
| 520 | /LM/1/Monitor/Op/Get | P1 | X1, Y1 | Best Effort | Normal |
| 522 | /LM/2/Foo/Op/Set | P2 | X2, Y2 | Best Effort | Normal |
| | • | • | • | • | • |
| | • | • | • | • | • |
| | • | • | • | • | • |

Fig. 5C

Global Clients Table

508

| | Namespace | Reference to Client | IP address/ Port # |
|---|---|---|---|
| 524 | /LM/2/Foo/Op/Set | S1 | X1, Y1 |
| 526 | /LM/1/Monitor/Op/Get | S2 | X2, Y2 |
| | • | • | • |
| | • | • | • |
| | • | • | • |

Fig. 5D

Reliable Communication Table

208(1)

| IP address/ Port # | Sending Sequence # | Receiving Sequence # | Missing Sequence Number List |
|---|---|---|---|
| X2, Y2 | 2040 | 50 | |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |

610

Fig. 6

Reliable Communication Table

208(2)

| IP address/ Port # | Sending Sequence # | Receiving Sequence # | Missing Sequence Number List |
|---|---|---|---|
| X1, Y1 | 50 | 2040 | |
| • | • | • | • |
| • | • | • | • |
| • | • | • | • |

710

Fig. 7